

Work Order ID 83398

83398

Page 1

April-17-12 4:09:03 PM

Item ID: D206-642-541

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Replacement Skidtube

Start Date: 17/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/04/17

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D3274

D

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP D206-642-541

CHG003

N/A 

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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N900040100

Setup Start *NS1*

Stop *NS2*

Start Date: 17/04/2012 **Start Qty:** 1.00 ***1***

Cust Item ID:

Required Date: 26/04/2012 **Req'd Qty:** 1.00 *** 1 ***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

**Insp.
Stamp**

QC5- Inspect part completeness to step on W/O

0.00

114

QC

Memo

0.00

Quality Control

116

QC10- Inspect visual per QSI004- ground welds

0.00

116

QC

Memo

0.00

Quality Control

120

Chemical Conversion Coat per QSI005 4.1

0.00

120

HandFinish

Memo

0.00

Hand Finishing

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Setup Start ***NS1***

Revision ID:

Item Name: Replacement Skidtube

Stop ***NS2***

Start Date: 17/04/2012 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC7-Inspect Chemical Conversion Coat	0.00							
130									
QC	Memo	0.00							
Quality Control									
150		0.00							
150	Skidtubes								
Skidtubes	Memo	0.00							
Skidtubes	1-Open Ø0.313" and 0.375" crossbolt spacer holes as per Dwg D3274								
	2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube								
	3-Bond web in place as per Dwg D3274 & QSI 015.								
	A/RSikaflex-291 <u>m/a 221</u>								
	Sikaflex expire date: <u>2013-01-01</u>								
	Start: <u>12-05-01</u> Time: <u>5:00</u>								
	Finish: <u>12-05-01</u> Time: <u>11:30</u>								
	(Adhere for 12 hours)								

① SAA 12-05-01

① SAA 12-05-01

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Item Name: Replacement Skidtube

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Start Date: 17/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

160

QC5- Inspect part completeness to step on W/O

0.00

160

QC

Memo

0.00

Quality Control

DP 12-5-2

170

0.00

170

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

- DC 12/05/02

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2
OPEN HOLES TO .297" Deburr

3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD
END OF TUBE
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

SAO 12-05-03

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Start Date: 17/04/2012 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	QC5- Inspect part completeness to step on W/O	0.00							
180									
QC	Memo	0.00				1	0		BE 12/05/08
Quality Control									
190		0.00							
190									
Skidtubes	Skidtubes	0.00							
	Memo								
Skidtubes	1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod A/RAluminum Rod <u>m120164</u>								BE 12/05/08
	3-Grind cross bolt welds flush as per Dwg D3274.								
	4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.								

SP/CC 17-5-9

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Start Date: 17/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200 *200* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00		8 12/6/22					
210 *210* QC Quality Control	QC10- Inspect visual per QSI004- ground welds Memo	0.00 0.00		8 12/5/22					(40)
220 *220* HandFinish Hand Finishing	Pressure Wash per QSI005 4.3 Memo Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch	0.00 0.00							1 7/6 12-5-22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Item Name: Replacement Skidtube

Stop *NS2*

Start Date: 17/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
230									
Powdercoat									
Powder Coating									
	Memo	0.00							
	START TIME: 3:40								
	OVEN TEMPERATURE: 320°F								
	FINISH TIME: 4:10								
240	QC3- Inspect Part Finish	0.00							
240									
QC									
Quality Control									
	Memo	0.00							
250	HandFinishing	0.00							
250									
HandFinish									
Hand Finishing									
	Memo	0.00							
	1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets.								
	A/RN/ALPS-3 114 596								
	2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a								
	A/RSikaflex-291 121221								
	Sikaflex expire date: 13/61								

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Setup Start ***NS1***

Revision ID:

Item Name: Replacement Skidtube

Stop ***NS2***

Start Date: 17/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	QC5- Inspect part completeness to step on W/O	0.00							
260									
QC	Memo	0.00							
Quality Control	Inspect Nut Plate & Inserts								
270		0.00							
270	HAND FINISHING RESOURCE #1								
HandFinish	Memo	0.00							
Hand Finishing	1-Install wearpads & gaskets as per Dwg D3274.								
	2-Install ring as per Dwg D3274								
	A/RSikaflex-291 121221								
	Sikaflex expire date: 13/01								
	3-Inspect for foreign objects as per QSI 024								
	4-Spray inside of tube on both sides of web with LPS-3								
	A/R LPS-3 Batch: 44596 N/A								
	5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.								
	A/RSikaflex-291 121221								
	Sikaflex expire date: 13/01								

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Work Order ID 83398

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Item ID: D206-642-541

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Replacement Skidtube

Stop

NS2

Start Date: 17/04/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 26/04/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

280

QC5- Inspect part completeness to step on W/O

0.00

280

QC

Memo

0.00

Quality Control

290

Identify as per dwg & Stock Location: PPP

0.00

290

Packaging

Memo

B 83036

0.00

Packaging

300

QC21- Final Inspection - Work Order Release

0.00

300

QC

Memo

0.00

Quality Control

12/6/12

12/6/12

MCT 12/06/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

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Page 1

Work Order ID: 83398

83398

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:B05.09.23 Revised per D206-642 Rev. JKJ/JLM
 IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
 IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
 IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC
 IPP Rev:F 08-06-02 add comment DD verified by:EC
 IPP Rev:G 08-10-09 revise details DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-1-190		Manufactured	No			110	Each	114.0000	1	1			

D2600-1-190

Extrusion Round 3" 206

**

SAD 12-04-25

Location	Loc Qty	Loc Code
HALL	45	
69622	45	
LG	69	
76912	69	

D3285-1

Manufactured No

110

Each

49.0000

1

1

D3285-1

Cap

**

BE 12-04-26

Location	Loc Qty	Loc Code
LG002	49	
52511	3	
52647	46	

D3282-041

Manufactured No

150

Each

7.0000

1

1

D3282-041

Float Web (206L/407)

**

SAD 12-05-01

Location	Loc Qty	Loc Code
LG	7	
77498	1	
80837	6	

80837

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR: Yes No** **DQA:** _____ **Date:** _____
Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured No

190

Each

1,060.000

12

12

D2649

Cross Bolt Spacer

BE 12/05/08

Location

Loc Qty

Loc Code

LG

721

77574

2

79502

65

79503

399

79564

248

79565

7

LG001

339

65317

1

68224

2

68507

11

71355

2

72704

2

72841

11

73390

8

73857

21

73858

53

73859

4

73860

4

78020

6

78583

2

79566

212

12

D3275-1

Manufactured No

190

Each

153.0000

12

12

D3275-1

Crossbolt Spacer

BE 12/05/08

Location

Loc Qty

Loc Code

LG

103

80184

103

12

LG002

50

66930

46

74437

4

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Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-03

Purchased

No

250

Each

1,382.000

2

2

CR3212-4-03

Cherry Rivet

**

2

(SP)

12/05/23

Location

Loc Qty

Loc Code

FP002

394

114859 ✓

394

ST331

988

110139

2

119017

986

D3415-041

Manufactured

No

250

Each

14.0000

1

1

D3415-041

Nut Plate

**

1

(SP)

12/05/23

Location

Loc Qty

Loc Code

ST042

14

82151 ✓

67605

14

CCR264SS3-3

Purchased

No

250

Each

467.0000

2

2

CCR264SS3-3

Cherry Rivet

**

2

(SP)

12/05/23

Location

Loc Qty

Loc Code

ST331

467

113973

2

117849 ✓

109

119017

356

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Parent Item Name: Replacement Skidtube

83398

D206-642-541

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-130

Purchased

No

250

Each

5,643.000

78

78

AI S4-1032-130

Insert

**

78

DP

12/05/23

Location

Loc Qty

Loc Code

ST280

205

119084

116

120671

89

ST281

2438

120807

438

120837

2000

ST282

3000

121269 ✓

3000

D3536-15

Manufactured

No

270

Each

34.0000

1

1

D3536-15

Gasket

**

1

DP

12/05/23

Location

Loc Qty

Loc Code

FP002

34

73318

16

80333

4

81343 ✓

14

D3536-23

Manufactured

No

270

Each

17.0000

1

1

D3536-23

Gasket

**

1

DP

12/05/23

Location

Loc Qty

Loc Code

FP002

17

74510

1

80334

16

83377 ✓

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-17-12 4:09:08 PM

Page 5

Work Order ID: 83398

83398

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3536-35

Manufactured No

270 Each

43.0000 1 1

D3536-35

Gasket

**

1 (2P) 12/05/23

Location

Loc Qty

Loc Code

FP002

43

80335

7

81340 ✓

12

82065

24

D3536-39

Manufactured No

270 Each

24.0000 1 1

D3536-39

Gasket

**

1 (2P) 12/05/23

Location

Loc Qty

Loc Code

FP

12

82252 ✓

12

FP002

12

73317

12

D3535-15

Manufactured No

270 Each

31.0000 1 1

D3535-15

Wearshoe

**

1 (2P) 12/05/23

Location

Loc Qty

Loc Code

FP001

31

74512

6

80328 ✓

12

81354

13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 6

Work Order ID: 83398

Parent Item: D206-642-541

Parent Item Name: Replacement Skidtube

83398

D206-642-541

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3535-35

Manufactured No

270 Each

40.0000 1 1

D3535-35

Wearshoe

**

1

(2P)

12/05/23

Location

Loc Qty

Loc Code

FP001

83638✓

40

67598

1

70815

1

78873

13

79849

1

81358

9

82064

15

D3535-39

Manufactured No

270 Each

18.0000 1 1

D3535-39

Wearshoe

**

1

(2P)

12/05/23

Location

Loc Qty

Loc Code

FP001

18

69759

1

73316

5

74513✓

12

D3535-23

Manufactured No

270 Each

11.0000 1 1

D3535-23

Wearshoe

**

1

(2P)

12/05/23

Location

Loc Qty

Loc Code

FP001

83375✓

11

74508

1

80330

10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 7

Work Order ID: 83398

83398

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3537-3 Manufactured No

270 Each

29.0000 1 1

D3537-3

Wearpad

**

1 (RP) 12/05/23

Location

Loc Qty

Loc Code

FP002

29

78836 ✓

24

80338

5

D3537-1 Manufactured No

270 Each

103.0000 9 9

D3537-1

Wearpad

**

9 (RP) 12/05/23

Location

Loc Qty

Loc Code

FG

10

79833

10

FP002

93

69817

5

73716

82

80337

4

81361

2

AN960C10L * NAS1149C0332 ✓ Purchased No

270 Each

0.0000 80 80

*AN960C10I *

washer

**

80 (RP) 12/05/23

AN960C416 * NAS1149C0463 ✓ Purchased No

270 Each

0.0000 1 1

AN960C416

washer

**

1 (RP) 12/05/23

119097 ✓

April-17-12 4:09:08 PM

Shop Packet Print

Page 7

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

April-17-12 4:09:08 PM

Page 8

Work Order ID: 83398

83398

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

D3672-1

Manufactured No

270 Each

1,010.000 2 2

D3672-1

Phenolic Washer

**

2

28 12/05/23

Location

Loc Qty

Loc Code

FP001

34

66821

34

ST060

976

72229

4

76277 ✓

472

80369

500

AN3C4A

Purchased No

270 Each

2,818.000 80 80

AN3C4A

BOLT

**

80

28 12/05/23

Location

Loc Qty

Loc Code

ST350

2818

120187

1752

120521

28

120769

38

121205

1000

AN4C5A

Purchased No

270 Each

235.0000 1 1

AN4C5A

BOLT

**

1

28 12/05/23

Location

Loc Qty

Loc Code

ST355

235

112243 ✓

152

119017

83

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

Picklist Print

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Page 9

Work Order ID: 83398

83398

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 17/04/2012

Required Date: 26/04/2012

Start Qty: 1.00

Required Qty: 1.00

D2646

Manufactured No

270

Each

75.0000

1

1

D2646

Aft Cap

**

1 (2P) 12/05/23

Location

Loc Qty

Loc Code

FP002

75

62678

5

68280

5

70945

1

71070

2

73294

1

73825

2

78018

17

79500

1

79562 ✓

41

D3413-1

Manufactured No

270

Each

48.0000

1

1

D3413-1

Ring

**

1 (2P) 12/05/23

Location

Loc Qty

Loc Code

ST420

16

79233

16

ST464

32

76754

22

80224 ✓

10

~~8224~~ ✓

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

RELEASED

07.02.12

DEO ATTACHED

DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED #	APPROVED #	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY	SCALE NTS
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

GENERAL NOTES:

1. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
2. DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
3. ALL HOLES DRILLED ON CENTERLINES.
4. BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
5. WELDING TO BE DONE PER DART QSI 004.
6. FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
7. DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
8. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

NO. 23398
WORK ORDER
WITHOUT NOTICE
SUBJECT TO AMENDMENT
UNCONTROLLED COPY
ENGINEERING
RETRN TO
SHOP COPY

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

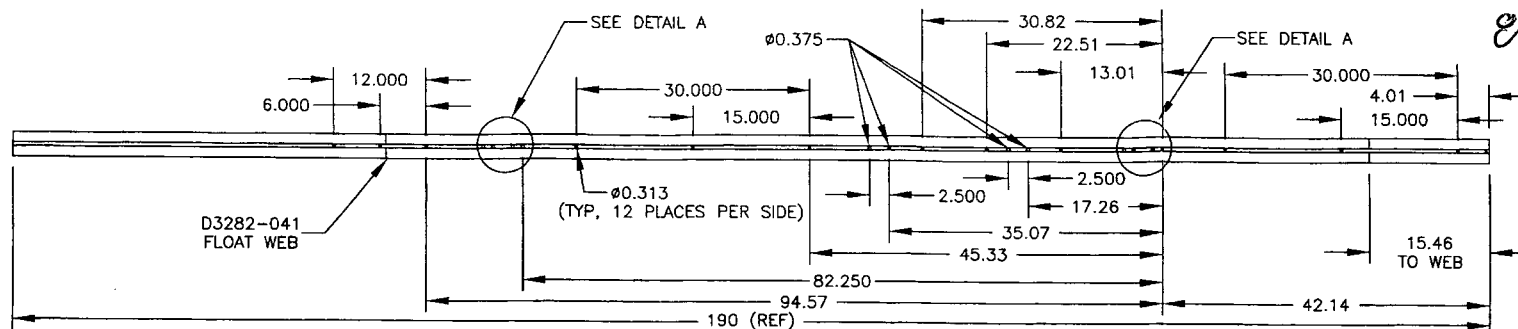
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

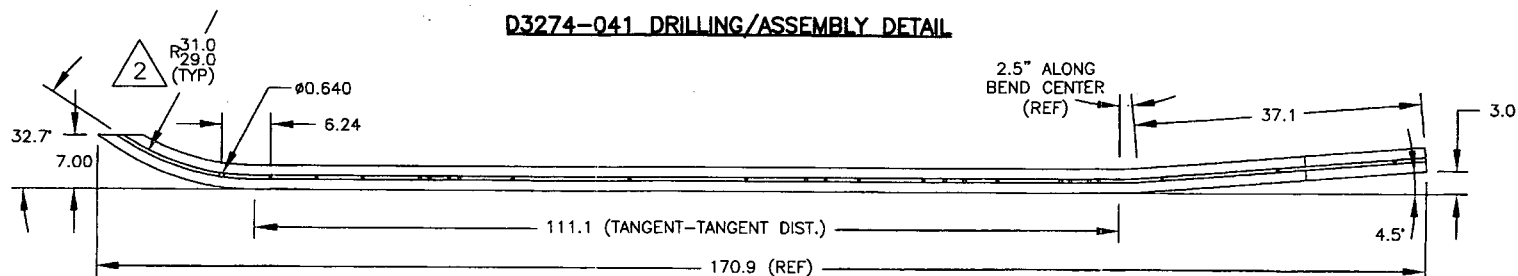
NOTE: Date & initial all entries

DEO ATTACHED

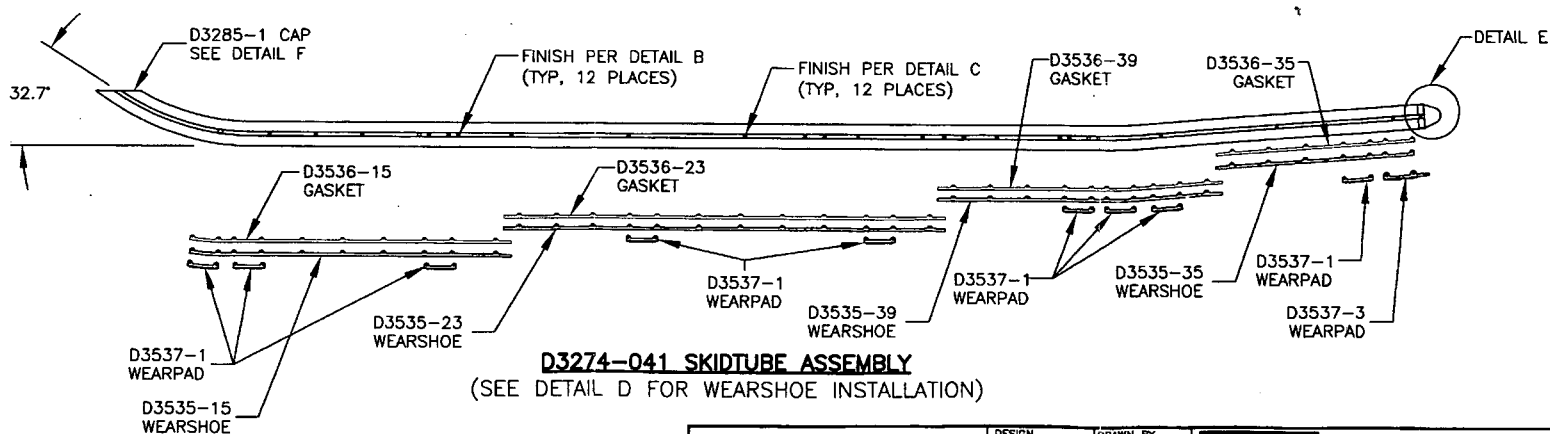
83398



D3274-041 DRILLING/ASSEMBLY DETAIL



D3274-041 BEND/DRILLING DETAIL



D3274-041 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED
07.02.12

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		DATE 06.12.19	TITLE SKIDTUBE ASSEMBLY		SCALE 1:15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

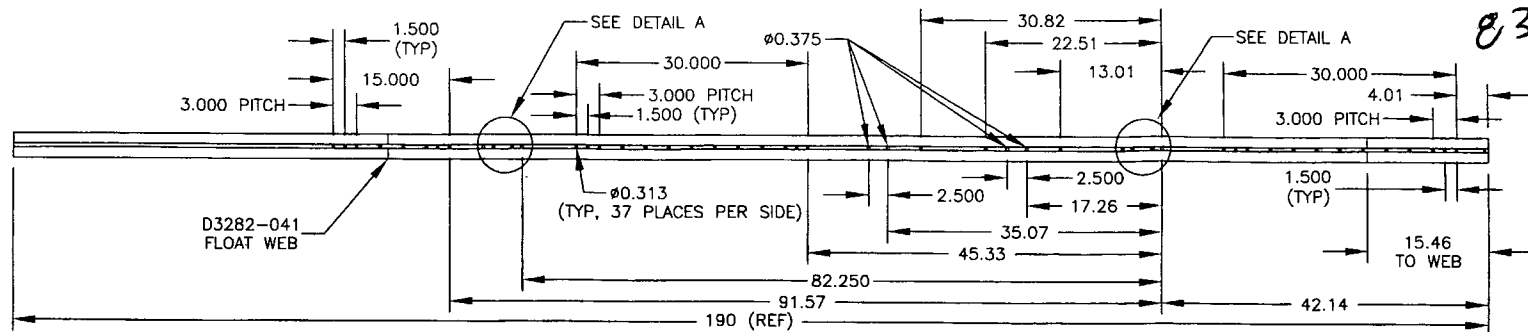
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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

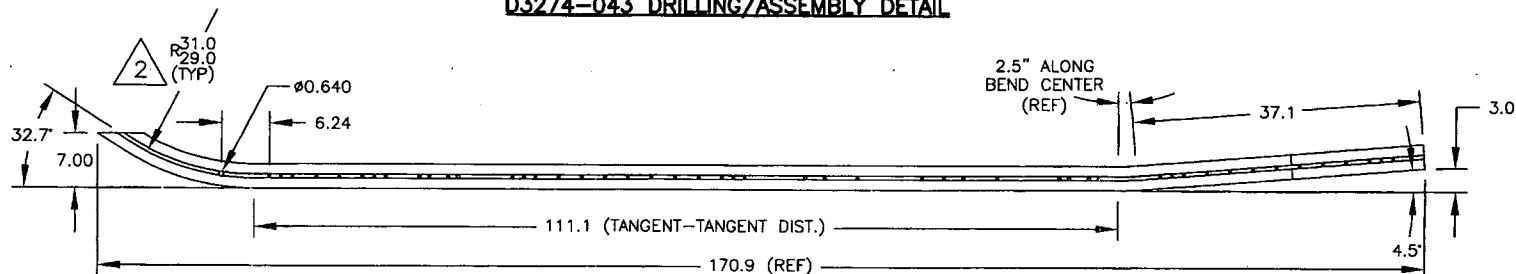
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

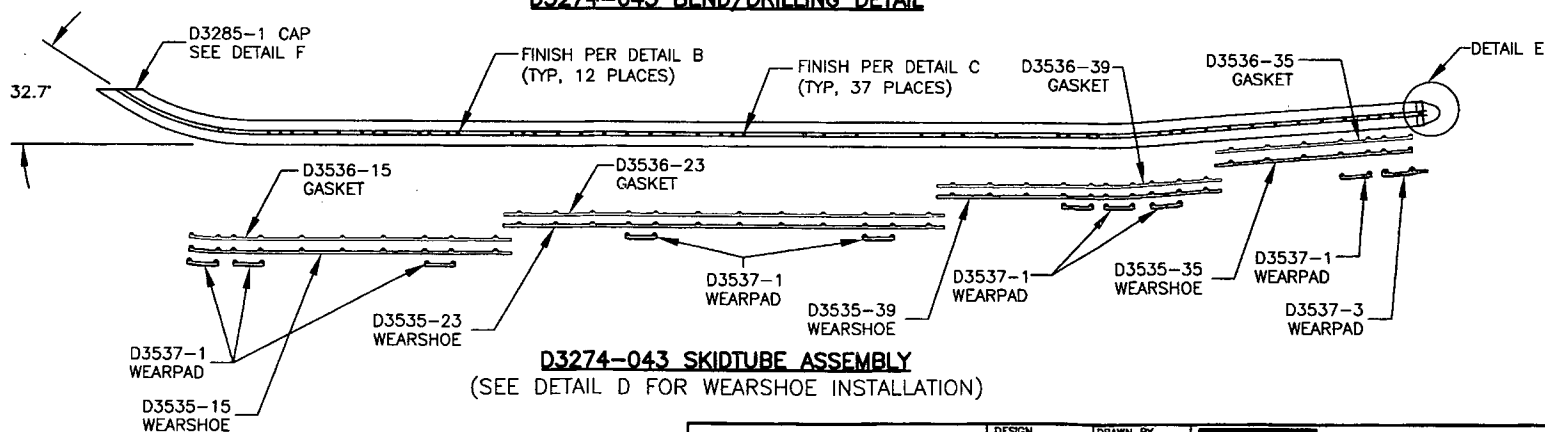
DEO ATTACHED



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



D3274-043 SKIDTUBE ASSEMBLY

(SEE DETAIL D FOR WEARSHOE INSTALLATION)

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CHECKED #	APPROVED #	DRAWING NO. D3274		REV. 0 SHEET 3 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY		SCALE 1:15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

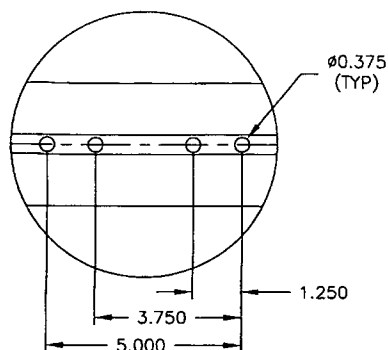
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

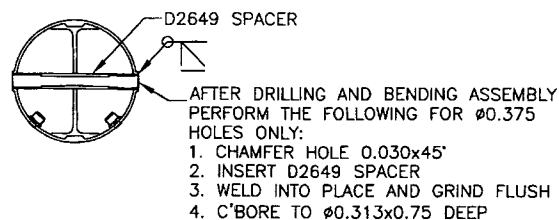
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

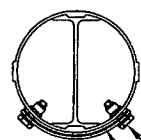
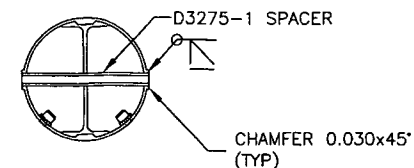
DETAIL A: DRILL DETAIL



DETAIL B FOR 0.375 HOLES ONLY



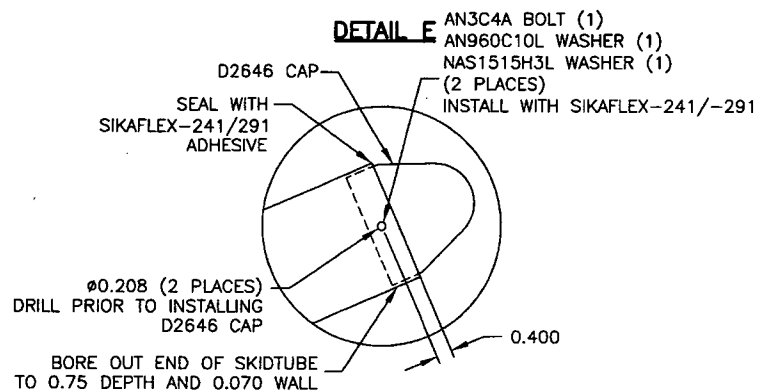
DETAIL C FOR 0.313 HOLES ONLY



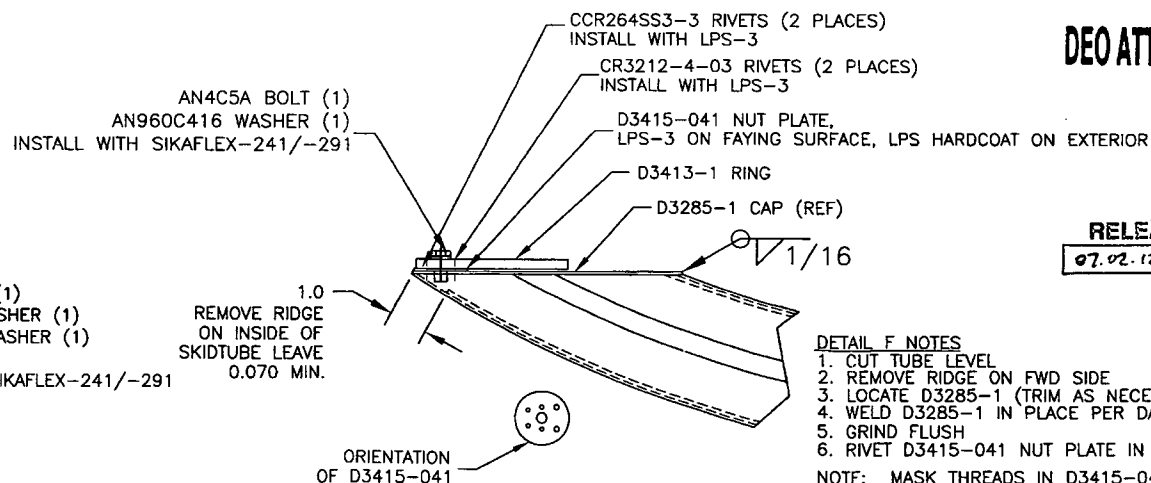
DETAIL D

ALS7-1032-130 INSERT (1)
AN3C4A BOLT (1)
AN960C10L WASHER (1)
(78 PLACES)
GASKET/WEARSHOE/WEARPAD (REF)

DETAIL E



DETAIL F: END FINISHING DETAIL



DEO ATTACHED

RELEASED
07.02.12

DETAIL F NOTES
1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE
NOTE: MASK THREADS IN D3415-041 PRIOR TO FINISH

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CHECKED #	APPROVED #	DRAWING NO. D3274		REV. D SHEET 4 OF 4	
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY		SCALE 1:3	

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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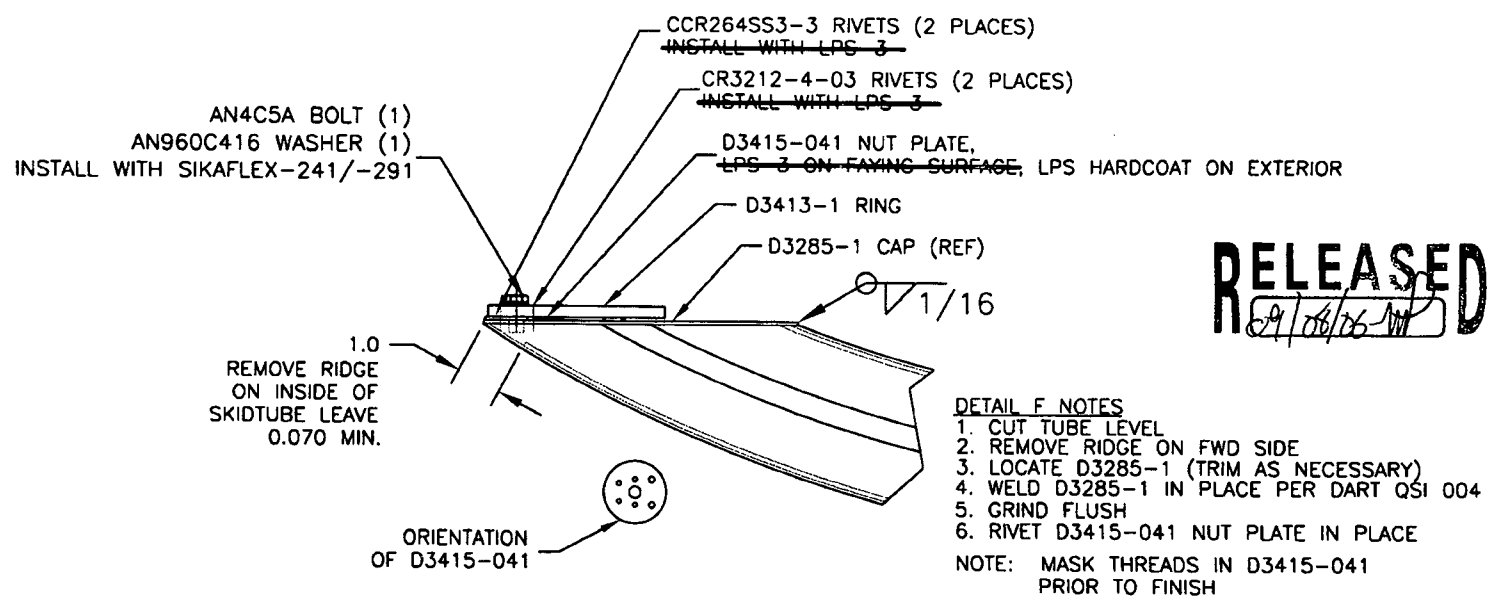
DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>CP</i>	CHECKED <i>CP</i>	MFG. APPR. <i>CP</i>	APPROVED <i>CP</i>	DE APPR. <i>CP</i>		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23	DATE 09/06/23	DATE 09.06.23	

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: "~~SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS-3' AFTER FINISH AND INSTALLATION OF INSERTS.~~
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

DETAIL F: END FINISHING DETAIL



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 291

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 83400
Part number: A206-642-541
Description: Skid tube
Welding Process: Tig ☒ Mig ☐
Base material: Alum.
Current: AC ☒ DC ☐

TEST REQUIREMENTS AND RESULTS

Visual:

pass ☒ fail ☐

Penetration:

pass ☒ fail ☐

UNACCEPTABLE

Cracks:

pass ☒ fail ☐

Undercut:

pass ☒ fail ☐

Pin holes:

pass ☒ fail ☐

Overlap (cold lap)

pass ☒ fail ☐

Porosity (surface):

pass ☒ fail ☐

Coloration:

pass ☒ fail ☐

Qualifier [Signature]

Date of Test Coupon 12.04.26

Welder [Signature]

Date of Test Coupon 12.04.26

The above named individual is qualified in accordance with AWS D17.1.2001 to weld